

INTRODUCTION

- Tuberculosis remains one of the oldest infectious diseases. Existing clinical and claim data often lack socioeconomic variables to elaborate on how new cases and poor prognoses incur in relation to poverty.
- Methodological advances to overcome data incompleteness are required to analyze TB as a result of health inequalities by socioeconomic status.

AIM

- This study aims to compare the hospitalization rate of tuberculosis by demographic and socioeconomic characteristics using data pseudonymization techniques.

METHOD

- ❖ Data source
 - Data pseudonymization techniques is used to merge individual-level administrative and survey data from three institutes:
 - Health Insurance Review & Assessment Service Research (HIRA)
 - National Health Insurance Service (NHIS)
 - Korea Labor Institute (KLI)
- ❖ Study population
 - 15,310 participants were analyzed after merging data sets with a de-identified join key created from shared information from each source.
- ❖ Outcomes
 - Hospitalization rates for people having tuberculosis differ by demographic and socioeconomic characteristics as follows: age, gender, education, marital status, income, type of employment etc.

RESULTS

- Hospitalization rates for people having tuberculosis differ by demographic and socioeconomic characteristics as follows:
- The hospitalization rate remained constant over the decade. After gender standardization, hospitalization rates per 100,000 had no difference by gender.

(Unit: N)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Patients	3.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	4.0	3.0
Inpatients	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Men	1.0	0.0	0.0	2.0	2.0	1.0	2.0	1.0	2.0	2.0
Women	1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0

- Most of the inpatients were unemployed and over 50 years of age

(Unit: %)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Full-time	20.0	33.3	0.0	20.0	0.0	25.0	0.0	20.0	16.7	40.0
Part-time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
Unemployed	80.0	33.3	100.0	60.0	100.0	75.0	100.0	80.0	83.3	40.0

- Most of the inpatients were less than high school

(Unit: %)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Less than Middle school	60.0	0.0	66.7	20.0	60.0	25.0	85.7	80.0	50.0	40.0
High school graduate	40.0	33.3	33.3	60.0	40.0	50.0	14.3	0.0	16.7	40.0
College Graduate	0.0	33.3	0.0	0.0	0.0	25.0	0.0	20.0	0.0	0.0
Over than University	0.0	33.3	0.0	20.0	0.0	0.0	0.0	0.0	33.3	20.0

- Most of the inpatients were married, divorced, widowed, separated

(Unit: %)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Unmarried	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0
Married	40.0	33.3	33.3	80.0	20.0	75.0	57.1	80.0	50.0	100.0
Divorced										
Widowed/separate	60.0	33.3	66.7	20.0	80.0	25.0	42.9	20.0	16.7	0.0

CONCLUSIONS

- We believe that unstable socioeconomic status will be related to higher hospitalization for tuberculosis, which causes higher health expenditure. Therefore, more universal health coverage and comprehensive social protection will be necessary for tuberculosis reduce

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REFERENCES

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